



# **STIC Search Report**

**EIC 1700**

**STIC Database Tracking Number: 161231**

**TO: Duc Truong**  
**Location: REM 10D71**  
**Art Unit : 1711**  
**August 15, 2005**

**Case Serial Number: 10/659734**

**From: Usha Shrestha**  
**Location: EIC 1700**  
**REMSSEN 4B28**  
**Phone: 571/272-3519**  
**usha.shrestha@uspto.gov**

## **Search Notes**



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: Dr. N. J. Mc Examiner #: 69334 Date: 8/2/05  
 Art Unit: 1711 Phone Number 302-681-6397 Serial Number: 639,734  
 Mail Box and Bldg/Room Location: 1-D71 Results Format Preferred (circle) PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and drawings.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

*General formula in claim 3 ⇒ formula III in claim 37. Shale*

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>Whe</u>	NA Sequence (#) _____	STN <u>8784-92</u>	
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____	
Searcher Location: _____	Structure (#) <u>4</u>	Questel/Orbit _____	
Date Searcher Picked Up: <u>8/12/05</u>	Bibliographic _____	Dr. Link _____	
Date Completed: <u>8/15/05</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: <u>120</u>	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: <u>30</u>	Patent Family _____	WWW/Internet _____	
Online Time: <u>300</u>	Other _____	Other (specify) _____	

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:13:12 ON 15 AUG 2005

=> d his

FILE 'HCAPLUS' ENTERED AT 09:29:39 ON 15 AUG 2005

L1 1 S US20040116649/PN  
SEL RN

FILE 'REGISTRY' ENTERED AT 09:30:12 ON 15 AUG 2005

L2 29 S E1-E29  
L3 STR  
L4 STR  
L5 STR  
L6 260944 S PETH/PCT  
L7 50 S ((L3 OR L4) AND L5) SAM SUB=L6  
L8 9 S L6 AND L2  
L9 STR  
L10 STR L9  
L11 50 S ((L3 AND L4) AND L5 AND L10) SAM SUB=L6  
L12 SCR 2043  
L13 50 S ((L3 OR L4) AND L5 AND L10) AND L12  
L14 33649 S ((L3 OR L4) AND L5 AND L10) AND L12 FUL  
L15 10353 S L6 AND L14  
L16 4595 S L15 AND 1/NC  
L17 2 S L2 AND L16  
L18 STR  
L19 50 S L18 SAM SUB=L14  
L20 STR L18  
L21 0 S L20 SAM SUB=L14  
L22 9 S L20 FUL SUB=L14  
SAV L22 DUC734/A

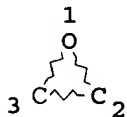
FILE 'HCAPLUS' ENTERED AT 13:12:33 ON 15 AUG 2005

L23 12 S L22

FILE 'REGISTRY' ENTERED AT 13:13:12 ON 15 AUG 2005

=> d que 123

L3 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RSPEC I  
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
L4 STR

CH2~CH2~O  
1 2 3

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
L5 STR

4  
O  
|||  
Ak~C~N  
1 2 3

NODE ATTRIBUTES:  
CONNECT IS E2 RC AT 3  
DEFAULT MLEVEL IS ATOM  
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STEREO ATTRIBUTES: NONE  
L10 STR

O~C~H  
1 2 3

NODE ATTRIBUTES:  
CONNECT IS E2 RC AT 2  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE  
L12 SCR 2043  
L14 33649 SEA FILE=REGISTRY SSS FUL ((L3 OR L4) AND L5 AND L10)  
AND L12  
L20 STR

7  
O  
||  
CH2-CH2-O~Ak~C~H  
1 2 3 4 5 6

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CONNECT IS E1 RC AT 7

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
L22 9 SEA FILE=REGISTRY SUB=L14 SSS FUL L20  
L23 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L22

=> fil hcap  
FILE 'HCAPLUS' ENTERED AT 13:13:27 ON 15 AUG 2005

=> d l23 1-12 ibib abs hitstr hitind

L23 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:14261 HCAPLUS

DOCUMENT NUMBER: 142:114733

TITLE: Polymer derivatives having particular atom  
arrangements in a linking group, their  
preparation, and use in compositions and as  
conjugates

INVENTOR(S): Harris, J. Milton; Kozlowski, Antoni; McManus,  
Samuel P.; Bentley, Michael D.; Charles,  
Stephen A.

PATENT ASSIGNEE(S): Nektar Therapeutics AL, Corporation, USA  
SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000360	A2	20050106	WO 2004-US16212	2004 0521

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,  
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,  
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,  
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,  
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,  
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,  
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,  
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005009988	A1	20050113	US 2004-851691	2004 0521
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PRIORITY APPLN. INFO.:

US 2003-473213P

P

2003

0523

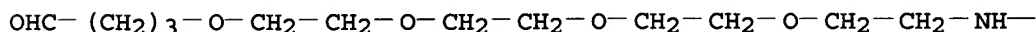
AB Polymeric reagents comprise a moiety of atoms arranged in a specific order, where the moiety is positioned between a water-soluble polymer and a reactive group. The polymeric reagents are useful for, among other things, forming polymer-active agent conjugates.

IT 820247-09-4P  
(functional pegylated reagents and conjugates with drugs, peptides, and hormones)

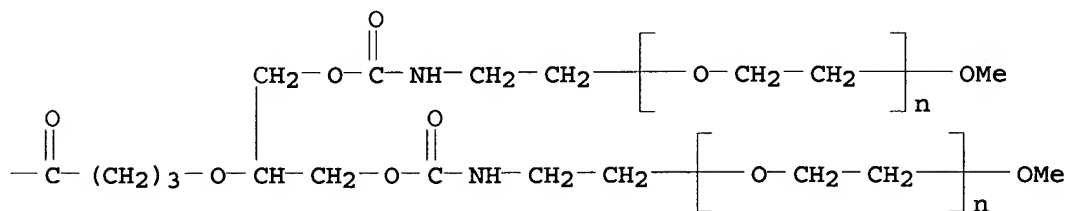
RN 820247-09-4 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha, \alpha'$ -[7-[(4,21-dioxo-8,11,14,17-tetraoxa-5-azaheneicos-1-yl)oxy]-4,10-dioxo-5,9-dioxo-3,11-diazatridecane-1,13-diyl]bis[ $\omega$ -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM A61K047-48

CC 35-8 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 23, 38, 63

IT 9001-27-8DP, Factor VIII, conjugate with polyethylene glycol derivative 9002-68-0DP, Follicle-stimulating hormone, conjugate with polyethylene glycol derivative 9002-72-6DP, Somatotropin, conjugate with polyethylene glycol derivative 11096-26-7DP, Erythropoietin, conjugate with polyethylene glycol derivative 16679-58-6DP, Desmopressin, conjugate with polyethylene glycol derivative 143011-72-7DP, G-CSF, conjugate with polyethylene glycol derivative 145514-04-1DP, Amdoxovir, conjugate with polyethylene glycol derivative 275392-18-2DP, conjugate with polyethylene glycol derivative 820247-07-2P 820247-09-4P 820247-11-8P 820247-12-9P 820247-17-4P 820247-18-5P 820247-19-6P 820247-20-9P 820247-21-0P 820247-22-1P  
(functional pegylated reagents and conjugates with drugs, peptides, and hormones)

L23 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:533960 HCAPLUS

DOCUMENT NUMBER: 141:94299

TITLE: N-Terminally monoPEGylated human growth hormone conjugates and process for their preparation  
 INVENTOR(S): Finn, Rory F.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 20 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 2004127417	A1	20040701	US 2003-718340	2003 1120
NL 1024831	A1	20040526	NL 2003-1024831	2003 1120
NL 1024831	C2	20050428		
US 2004142870	A1	20040722	US 2004-771895	2004 0204
PRIORITY APPLN. INFO.:			US 2002-427823P	P 2002 1120
			US 2003-718340	A2 2003 1120

AB The present invention provides a chemical modified human Growth Hormone (hGH) prepared by attaching a polyethylene glycol butyraldehyde moiety to the N-terminal phenylalanine of the protein. The chemical-modified protein according to the present invention may have a much longer lasting hGH activity than that of the un-modified hGH, enabling reduced dose and scheduling opportunities.

IT 672305-37-2DP, conjugates with human growth hormone (preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

RN 672305-37-2 HCAPLUS

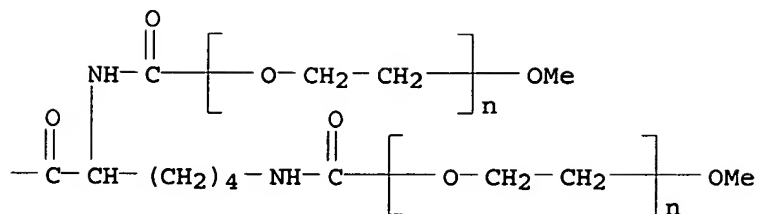
CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaocetadec-1-yl)-1,5-pentanediy]]bis(iminocarbonyl)]bis[ $\omega$ -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B



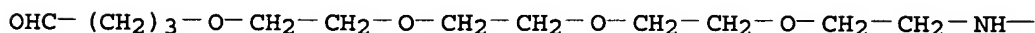
IT 672305-37-2

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

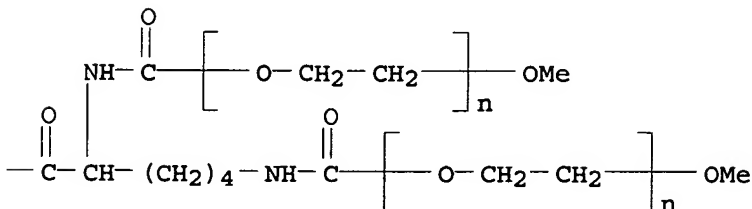
RN 672305-37-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaooctadec-1-yl)-1,5-pentanedyl]bis(iminocarbonyl)]bis[ $\omega$ -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM A61K038-27

ICS C07K014-61

INCL 514012000; 530399000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 2, 35

IT 9002-72-6DP, Somatotropin, conjugates with PEG derivative  
82030-87-3DP, Methionyl human growth hormone, conjugates with PEG derivative 672305-37-2DP, conjugates with human growth hormone

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

IT 9002-72-6, Somatotropin 533881-58-2 672305-37-2

(preparation, pharmacokinetics, and pharmacodynamics of human growth hormone-PEG conjugates)

L23 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:220384 HCAPLUS  
 DOCUMENT NUMBER: 140:271415  
 TITLE: Water-soluble polymer alkanals  
 INVENTOR(S): Kozlowski, Antoni  
 PATENT ASSIGNEE(S): Nektar Therapeutics Al, Corporation, USA  
 SOURCE: PCT Int. Appl., 127 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022630	A2	20040318	WO 2003-US28221	2003 0909
WO 2004022630	A3	20040415		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2498167	AA	20040318	CA 2003-2498167	2003 0909
US 2004116649	A1	20040617	US 2003-659734	2003 0909
EP 1546235	A2	20050629	EP 2003-752147	2003 0909
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			US 2002-409251P	P 2002 0909
			US 2003-456580P	P 2003 0319
			US 2003-456850P	P 2003 0321
			WO 2003-US28221	W 2003 0909

AB The present invention is directed to alkanal derivs. of water-soluble

polymers such as poly(ethylene glycol), their corresponding hydrates and acetals, and to methods for preparing and using such polymer alkanals. The polymer alkanals of the invention are prepared in high purity and exhibit storage stability. Thus, 2.0 g polyethylene glycol Me ether and 0.5 g 4-chlorobutyraldehyde di-Et acetal were reacted in the presence of 4.0 mL 1.0 M potassium tert-butoxide tert-butanol solution at 100-105° to give 1.6 g methoxy polyethylene glycol butyraldehyde di-Et acetal, 1.0 g of which was hydrolyzed to give 0.72 g methoxy polyethylene glycol butyraldehyde, which was used for pegylation of lysozyme.

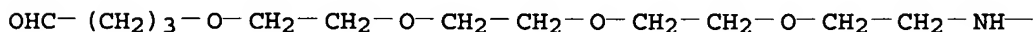
IT 672305-37-2P

(preparation of water-soluble polymer alkanals for pegylation of lysozyme)

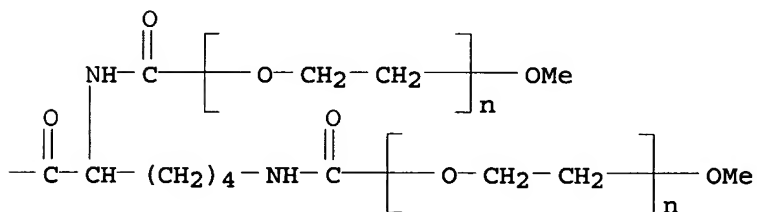
RN 672305-37-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[[[(1S)-1-(1,18-dioxo-5,8,11,14-tetraoxa-2-azaooctadec-1-yl)-1,5-pentanediyl]]bis(iminocarbonyl)]bis[ $\omega$ -methoxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G065-329

ICS C07C047-198; C07K001-107

CC 35-8 (Chemistry of Synthetic High Polymers)

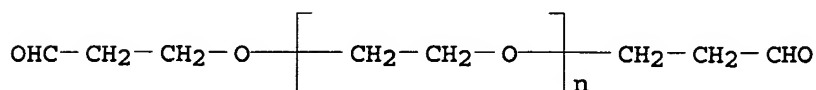
Section cross-reference(s): 63

IT 1397-89-3DP, Amphotericin B, reaction products with methoxy polyoxyalkylene butyral 9001-63-2DP, Lysozyme, amino derivs., reaction products with methoxy polyethylene glycol butyraldehyde 9002-68-0DP, Follicle stimulating hormone, reaction products with methoxy polyoxyalkylene butyral 9002-72-6DP, Somatotropin, reaction products with methoxy polyoxyalkylene butyral 11096-26-7DP, EPO, reaction products with methoxy polyoxyalkylene butyral 143011-72-7DP, GCSF, reaction products with methoxy polyoxyalkylene butyral 533881-58-2DP, reaction products with lysozyme 672305-37-2P

(preparation of water-soluble polymer alkanals for pegylation of lysozyme)

L23 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:9687 HCAPLUS  
 DOCUMENT NUMBER: 139:202230  
 TITLE: Hyaluronic acid hydrogel film: a new biomaterial for drug delivery and wound healing  
 AUTHOR(S): Luo, Yi; Kirker, Kelly R.; Prestwich, Glenn D.  
 CORPORATE SOURCE: Department of Medicinal Chemistry, The University of Utah, Salt Lake City, UT, 84112-5820, USA  
 SOURCE: Hyaluronan, [Proceedings of the International Cellucon Conference], 12th, Wrexham, United Kingdom, 2000 (2002), Meeting Date 2000, Volume 2, 271-276. Editor(s): Kennedy, John F. Woodhead Publishing Ltd.: Cambridge, UK. CODEN: 69DKVZ; ISBN: 1-85573-570-9  
 DOCUMENT TYPE: Conference  
 LANGUAGE: English  
 AB A new hyaluronic acid (HA)-based hydrogel film was developed and evaluated for use in drug delivery and wound healing. This biocompatible material crosslinks and gels in minutes, and the dried film swells and rehydrates to a flexible hydrogel in seconds. HA was first converted to the adipic dihydrazide (ADH) derivative and then crosslinked with the macromol. homobifunctional reagent poly(ethylene glycol)-propiondialdehyde (PEG-diald) to give a polymer network. After gelation, a solvent casting method was used to obtain an HA hydrogel film. The dried film swelled sevenfold in volume in buffer, reaching equilibrium in less than 100 s. SEM of the hydrogel films showed a condensed and featureless structure before swelling, but a porous microstructure when hydrated. The thermal behavior of the hydrogel films, characterized by differential scanning calorimetry, indicated that the crosslinking of the two polymers clearly produced a new material having a microstructure different from either of its two components. The in vitro enzymic degradation of the HA hydrogel films by hyaluronidase (Hase) was also studied using SEM. Drug release from the hydrogel film was also evaluated in vitro using selected anti-bacterial and anti-inflammatory drugs. This novel biomaterial can be employed for controlled release of therapeutic agents at wound sites.  
 IT 631898-69-6P (hyaluronic acid hydrogel film-new biomaterial for drug delivery and wound healing)  
 RN 631898-69-6 HCAPLUS  
 CN Hyaluronic acid, polymer with hexanedioic acid dihydrazide and  $\alpha$ -(3-oxopropyl)- $\omega$ -(3-oxopropoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 151709-76-1  
 CMF (C2 H4 O)<sub>n</sub> C6 H10 O3  
 CCI PMS



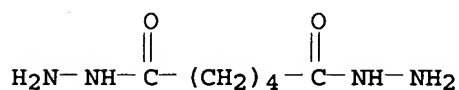
CM 2

CRN 9004-61-9  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 1071-93-8  
CMF C6 H14 N4 O2



CC 63-5 (Pharmaceuticals)  
IT 631898-69-6P

(hyaluronic acid hydrogel film-new biomaterial for drug  
delivery and wound healing)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L23 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1996:630259 HCAPLUS

DOCUMENT NUMBER: 125:269871

TITLE: Polymer compositions and methods for directed  
ultrasound imagingINVENTOR(S): Quay, Steven C.; Marrs, Christopher M.; Worah,  
Dilip M.

PATENT ASSIGNEE(S): Sonus Pharmaceuticals, Inc., USA

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 727225	A2	19960821	EP 1996-630007	1996 0208
EP 727225	A3	19970115		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08325165	A2	19961210	JP 1996-52387	1996 0214
PRIORITY APPLN. INFO.:		US 1995-388468	A	1995 0214
		US 1995-471568	A	1995

0606

AB Compns. for enhancing the ability to target gaseous microbubbles used in ultrasound contrast are described. The compns. include a cell adhesion mol. ligand which is incorporated into a desired mol. to form a conjugate. When the contrast agent is a colloidal dispersion, the conjugate is formed with a surfactant. When the agent is a solid microsphere, the conjugate is formed with a portion of the solid. Once the conjugate is formed, the surfactant or microsphere will adhere to the surface of desired target cells by coupling of the CAM ligand to cell adhesion mols. expressed on the cell surface. Thus, Jeffamine M-2070 was allowed to react with Sialyl Lewis X in the presence of NaCNBH<sub>3</sub> and the product formed was used in compns. and.

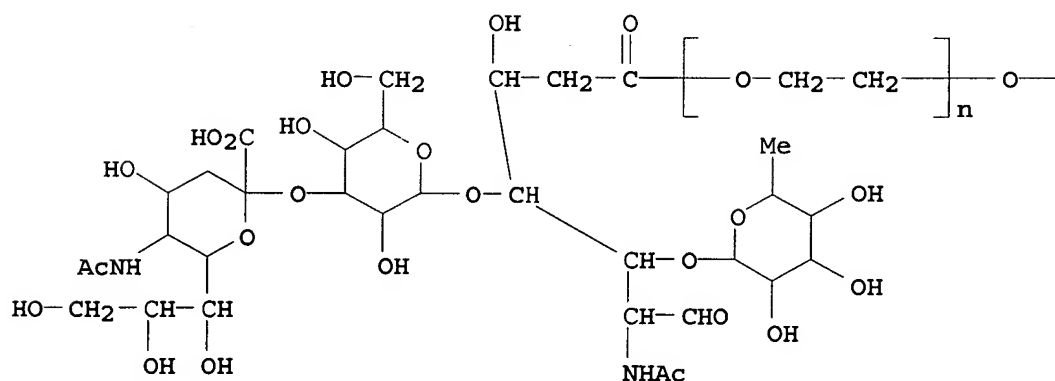
IT 182232-90-2P

(polymer compns. for directed ultrasound imaging)

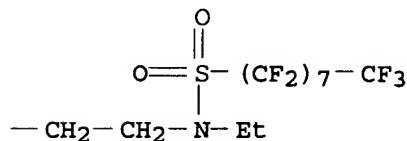
RN 182232-90-2 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 4)-O-[6-deoxy- $\alpha$ -L-galactopyranosyl-(1 $\rightarrow$ 3)]]-2-(acetylamino)-2,6-dideoxy-D-gluco-hepturonoyl]- $\omega$ -[2-[ethyl[(heptadecafluorooctyl)sulfonyl]amino]ethoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM A61K049-00

CC 9-16 (Biochemical Methods)

Section cross-reference(s): 33, 34, 35, 46, 63

IT 65545-80-4P, Zonyl FSN-100 122525-99-9P, Zonyl FSO-100

182232-54-8P 182232-61-7P 182232-70-8P 182232-82-2P

182232-90-2P 182232-98-0P 182371-79-5P, Afilan OTN

(polymer compns. for directed ultrasound imaging)

L23 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1996:446567 HCAPLUS  
 DOCUMENT NUMBER: 125:96067  
 TITLE: Terminal reducing sugar-containing glucose or galactose polymers as carriers for mucosal drug administration  
 INVENTOR(S): Koyama, Yoshuki; Kataoka, Kazunori; Okano, Mitsuo; Nakatomi, Ichiro; Suzuki, Hiroyuki  
 PATENT ASSIGNEE(S): Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08104651	A2	19960423	JP 1994-66638	1994 0310
PRIORITY APPLN. INFO.:				JP 1994-66638 A 1994 0310
JP 1993-76083				1993 0310

AB Terminal reducing sugar-containing glucose or galactose polymers or reducing alkyl sugar-containing mols. are effective carriers for mucosal administration of drugs such as calcitonin. The method showed good bioavailability and avoided skin damages due to prolonged administration by injection.

IT 178937-68-3P

(terminal reducing sugar-containing glucose or galactose polymers or reducing alkyl sugar-containing mols. as carriers for mucosal drug administration)

RN 178937-68-3 HCAPLUS

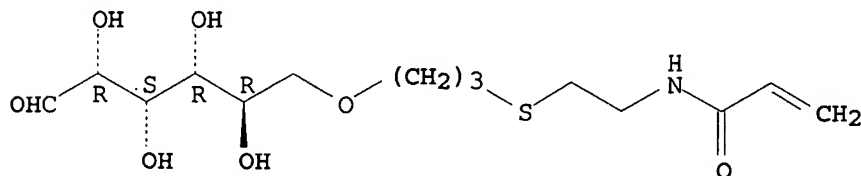
CN D-Glucose, 6-O-[3-[[2-[(1-oxo-2-propenyl)amino]ethyl]thio]propyl]-, polymer with 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

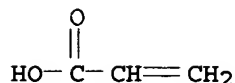
CRN 178937-67-2

CMF C14 H25 N O7 S

Absolute stereochemistry.



CM 2

CRN 79-10-7  
CMF C3 H4 O2IC ICM A61K047-48  
ICS A61K009-00

ICA C07H009-04; C07H013-04; C07H013-06

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT 155107-48-5P 178937-63-8P 178937-65-0P 178937-68-3P  
(terminal reducing sugar-containing glucose or galactose polymers  
or reducing alkyl sugar-containing mols. as carriers for mucosal  
drug administration)

L23 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:156586 HCAPLUS

DOCUMENT NUMBER: 110:156586

TITLE: Chitin-containing cleaning solutions

INVENTOR(S): Deguchi, Katsuhiko

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63193999	A2	19880811	JP 1987-25974	1987 0206

PRIORITY APPLN. INFO.:

JP 1987-25974

1987  
0206

AB Title solns. which are stable liqs. and do not form film nor gel in contact with air, contain alkylethoxysulphates  $\text{R}_{10}(\text{C}_2\text{H}_4\text{O})_n\text{SO}_3\text{M}$  ( $\text{R}_1 = \text{C}_{\geq 7}$  alkyl;  $n \geq 1$ ;  $\text{M} =$  alkali or alkaline earth metal) 10-40, tertiary amine oxides  $\text{R}_2\text{R}_3\text{R}_4\text{NO}$  ( $\text{R}_2 = \text{C}_{10-18}$  alkyl,  $\text{C}_{10-18}$  alkenyl;  $\text{R}_3-4 = \text{C}_{1-2}$  alkyl) 0.5-10, and (c) water-soluble chitins 0.01-10%. Thus, Na polyoxyethylene dodecyl ether sulfate 15, dodecyldimethylamine oxide 3, and chitin carboxymethyl ether (I) 0.5% were mixed in water to give a solution forming no film on its surface after 3 days at 20° and 60% relative humidity, whereas film was formed in the absence of I.

IT 57216-54-3

(liquid detergents containing, with good resistance to gel and film formation)

RN 57216-54-3 HCAPLUS

CN D-Glucose, 2-(acetyl-amino)-2-deoxy-6-O-(2-hydroxyethyl)-,



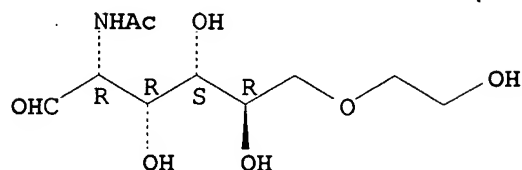
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6

CMF C10 H19 N O7

Absolute stereochemistry.



IC ICM C11D010-02

ICI C11D010-02, C11D001-29, C11D001-75, C11D003-38

CC 46-6 (Surface Active Agents and Detergents)

IT 1643-20-5, Dodecyldimethylamine oxide 9004-82-4 57216-53-2

57216-54-3 99576-08-6

(liquid detergents containing, with good resistance to gel and film formation)

L23 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:73773 HCAPLUS

DOCUMENT NUMBER: 110:73773

TITLE: Glycosylated polyethylene glycol derivatives for glycosylation of proteins

INVENTOR(S): Minami, Isao; Ueno, Hayao; Fujino, Masahiko

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 251304	A2	19880107	EP 1987-109425	1987 0630
EP 251304	A3	19900110		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 63152393	A2	19880624	JP 1987-161898	1987 0629
CA 1303030	A1	19920609	CA 1987-541108	1987 0702
US 5037969	A	19910806	US 1990-532179	1990 0604
PRIORITY APPLN. INFO.:			JP 1986-156698	A 1986 0703

US 1987-68915

B1

1987

0702

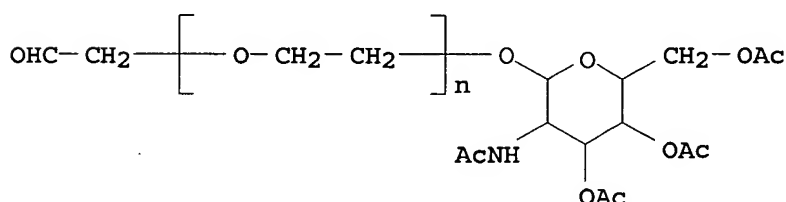
AB The glycosylated polyethylene glycol derivs.  $RO(CH_2CH_2O)_m(CH_2)_nZ$  (I; Z = CHO,  $CH_2OH$ ,  $CO_2H$ ; m = optional pos. integer; n = 1-3; R = glycosyl), which are useful as chemical-modifying agents for proteins and protein-fractioning agents, are prepared Polyethylene glycol mono-tetrahydropyranyl ether was glycosylated with acetobromogalactose and deprotected to give 2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosylpolyethylene glycol, which was oxidized using oxalyl chloride- $Me_2SO-Et_3N$ , and deprotected by alkaline hydrolysis to give  $\beta$ -D-galactopyranosylpolyethylene glycol aldehyde (II). II reacted with recombinant interferon- $\alpha$  (IFN- $\alpha$ ) in the presence of Na cyanoborohydride to give glycosylated IFN- $\alpha$  (III), in which 6.9 of the 11 Lys residues had been modified; the activity was  $0.83 \pm 106$  IU/mg. III was selectively adsorbed on a WGA-agarose column, while unmodified IFN- $\alpha$  and polyethylene glycol-modified IFN- $\alpha$  passed through the column; the degree of adsorption increased with increasing modification.

IT 117265-75-5P 117360-33-5P

(preparation of, for protein glycosylation)

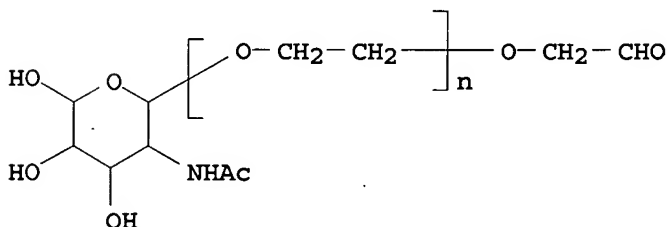
RN 117265-75-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -(2-oxoethyl)- $\omega$ -[[3,4,6-tri-O-acetyl-2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]oxy]-(9CI) (CA INDEX NAME)



RN 117360-33-5 HCAPLUS

CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -[2-(acetylamino)-2-deoxy- $\beta$ -D-glucopyranosyl]- $\omega$ -(2-oxoethoxy)-(9CI) (CA INDEX NAME)



IC ICM C08G065-28

ICS C07H015-08; C08G065-32; C07K003-00

CC 15-5 (Immunochemistry)

Section cross-reference(s): 9

IT 57-50-1DP, polyethylene glycol-bound 63-42-3DP, Lactose, polyethylene glycol-bound 69-79-4DP, polyethylene glycol-bound 72-87-7DP, polyethylene glycol-bound 90-74-4DP, Rutinose,

polyethylene glycol-bound 90-76-6DP, polyethylene glycol-bound  
 90-77-7DP, polyethylene glycol-bound 131-48-6DP, polyethylene  
 glycol-bound 512-69-6DP, Raffinose, polyethylene glycol-bound  
 528-50-7DP, Cellobiose, polyethylene glycol-bound 546-60-1DP,  
 Umbelliferose, polyethylene glycol-bound 577-76-4DP, Chitobiose,  
 polyethylene glycol-bound 585-99-9DP, Melibiose, polyethylene  
 glycol-bound 2280-44-6DP, Glucopyranose, polyethylene  
 glycol-bound 2438-80-4DP, Fucopyranose, polyethylene  
 glycol-bound 4618-18-2DP, Lactulose, polyethylene glycol-bound  
 6082-29-7DP, polyethylene glycol-bound 6860-47-5DP, Xylobiose,  
 polyethylene glycol-bound 10257-31-5DP, Xylopyranose,  
 polyethylene glycol-bound 10257-35-9DP, Lyxopyranose,  
 polyethylene glycol-bound 14116-69-9DP, Vicianose, polyethylene  
 glycol-bound 15761-67-8DP, Ribofuranose, polyethylene  
 glycol-bound 25322-68-3DP, glycosylated and functionalized  
 26388-68-1DP, Sambubiose, polyethylene glycol-bound  
 35890-38-1DP, Sialyllactose, polyethylene glycol-bound  
 40825-89-6DP, Galactopyranose, polyethylene glycol-bound  
 46032-76-2DP, Mannopyranose, polyethylene glycol-bound  
 58166-22-6DP, Turanose, polyethylene glycol-bound 89299-64-9DP,  
 Arabinopyranose, polyethylene glycol-bound 117265-74-4P  
**117265-75-5P** 117265-76-6P 117265-77-7P 117265-78-8P  
 117265-79-9P 117265-81-3P 117265-82-4P 117265-83-5P  
 117265-85-7P 117287-24-8P 117360-32-4P **117360-33-5P**  
 117360-34-6P 117360-35-7P 117360-36-8P 117360-37-9P  
 117466-16-7DP, polyethylene glycol-bound 118649-12-0DP,  
 polyethylene glycol-bound

(preparation of, for protein glycosylation)

L23 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1981:180713 HCAPLUS

DOCUMENT NUMBER: 94:180713

TITLE: Surgical lubricating powder for natural or  
 synthetic rubber surgical elements

INVENTOR(S): Casey, Donald James

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: Brit., 9 pp.  
 CODEN: BRXXAA

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
GB 1583180	A	19810121	GB 1977-44643	1977 1026
US 4059097	A	19771122	US 1976-738502	1976 1103
US 4064564	A	19771227	US 1976-738200	1976 1103
US 4068757	A	19780117	US 1976-738501	1976 1103
BE 860423	A1	19780503	BE 1977-182300	1977

PRIORITY APPLN. INFO.:	US 1976-738200	A	1103
			1976
			1103
	US 1976-738501	A	
			1976
			1103
	US 1976-738502	A	
			1976
			1103

AB A sterile surgical laminate package comprised a strippable laminate container containing a sterile rubber glove, on the surface of which was a lubricating powder consisting essentially of 1.5 g of an enzymically degradable form of poly(N-acetyl-D-glucosamine) (I) [27555-50-6]; the powder's particle size was 0.5-149  $\mu$  and it would pass through a 200 mesh screen. I was prepared by grinding com. chitin in a ball mill to a particle size of between 1 and 6 mm, followed by sequential treatment with 2N HCl, 90% HCO<sub>2</sub>H, and 10% NaOH. I could be used per se or converted into I membranes, poly[N-acetyl-6-O-(carboxymethyl)-D-glucosamine] [57216-53-2], poly[N-acetyl-6-O-(2'-hydroxyethyl)-D-glucosamine] [57216-54-3], or poly(N-acetyl-6-O-ethyl-D-glucosamine) [57216-56-5].

IT 57216-54-3P 57216-56-5P  
(preparation of, as surgical glove lubricant)

RN 57216-54-3 HCAPLUS

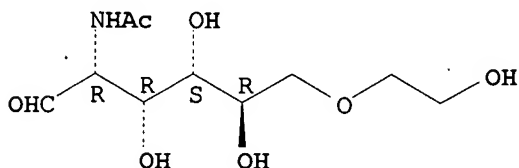
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-(2-hydroxyethyl)-,  
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6

CMF C10 H19 N O7

Absolute stereochemistry.



RN 57216-56-5 HCAPLUS

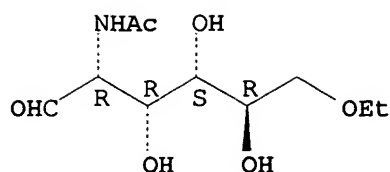
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 57216-55-4

CMF C10 H19 N O6

Absolute stereochemistry.



IC C08B037-06  
 CC 63-7 (Pharmaceuticals)  
 IT 57216-53-2P 57216-54-3P 57216-56-5P  
 (preparation of, as surgical glove lubricant)

L23 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1978:197685 HCAPLUS  
 DOCUMENT NUMBER: 88:197685  
 TITLE: Chitin derived powder in sterile surgical  
 element package  
 INVENTOR(S): Casey, Donald James  
 PATENT ASSIGNEE(S): American Cyanamid Co., USA  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO. -----	KIND ---	DATE -----	APPLICATION NO. -----	DATE
US 4068757	A	19780117	US 1976-738501	1976 1103
AU 7729651	A1	19790426	AU 1977-29651	1977 1013
GB 1583180	A	19810121	GB 1977-44643	1977 1026
DE 2748231	A1	19780518	DE 1977-2748231	1977 1027
SE 7712400	A	19780503	SE 1977-12400	1977 1102
DK 7704873	A	19780504	DK 1977-4873	1977 1102
JP 53058186	A2	19780525	JP 1977-130946	1977 1102
NL 7712138	A	19780508	NL 1977-12138	1977 1103
FR 2369826	A1	19780602	FR 1977-33071	1977 1103
PRIORITY APPLN. INFO.:			US 1976-738200	A 1976

1103

US 1976-738501

A

1976

1103

US 1976-738502

A

1976

1103

AB Natural or synthetic surgical goods are lubricated by a finely divided chitin-derived biodegradable powder of poly(N-acetyl-D-glucosamine) [27555-50-6], poly[N-acetyl-6-O-(carboxymethyl)-D-glucosamine [57216-53-2], poly[N-acetyl-6-O-ethyl-D-glucosamine [57216-56-5], or poly[N-acetyl-6-O-(2'-hydroxyethyl)-D-glucosamine [57216-54-3]. Lubricated gloves may be sterilized with no adverse effect on the desirable properties of the powder. The powder is readily absorbed by living tissue without deleterious tissue reaction. Thus, poly(N-acetyl-D-glucosamine) was obtained from powdered chitin by extraction with 2N HCl (decalcification), washing the material with water till neutral, and stirring it with 90% HCO<sub>2</sub>H overnight at room temperature. The mixture was centrifuged and water-washed residue was suspended in 10% NaOH and heated at 90-100° for 2.5 h. The cake obtained after filtering, was washed with water until neutral and dried at 40°.

IT 57216-54-3P 57216-56-5P

(chitin derived surgical good lubricant, preparation of)

RN 57216-54-3 HCAPLUS

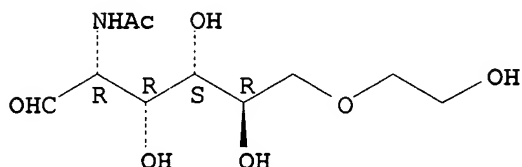
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6

CMF C10 H19 N O7

Absolute stereochemistry.



RN 57216-56-5 HCAPLUS

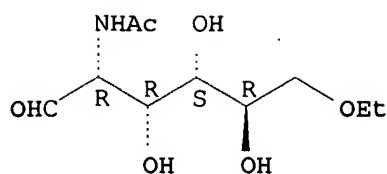
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 57216-55-4

CMF C10 H19 N O6

Absolute stereochemistry.



IC A61L017-02

INCL 206363000

CC 63-7 (Pharmaceuticals)

IT 27555-50-6P 57216-53-2P 57216-54-3P

57216-56-5P

(chitin derived surgical good lubricant, preparation of)

L23 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1978:126373 HCAPLUS

DOCUMENT NUMBER: 88:126373

TITLE: Minimizing tissue reaction during surgery with chitin

INVENTOR(S): Casey, Donald James

PATENT ASSIGNEE(S): American Cyanamid Co., USA

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4059097	A	19771122	US 1976-738502	1976 1103
AU 7729651	A1	19790426	AU 1977-29651	1977 1013
GB 1583180	A	19810121	GB 1977-44643	1977 1026
DE 2748231	A1	19780518	DE 1977-2748231	1977 1027
SE 7712400	A	19780503	SE 1977-12400	1977 1102
DK 7704873	A	19780504	DK 1977-4873	1977 1102
JP 53058186	A2	19780525	JP 1977-130946	1977 1102
NL 7712138	A	19780508	NL 1977-12138	1977 1103
FR 2369826	A1	19780602	FR 1977-33071	1977 1103

PRIORITY APPLN. INFO.:

US 1976-738200

A

1976  
1103

US 1976-738501

A

1976  
1103

US 1976-738502

A

1976  
1103

GI For diagram(s), see printed CA Issue.

AB Surgical rubber gloves are lubricated by applying finely powdered biodegradable poly(N-acetyl-D-glucosamine) (I) [27555-50-6], poly[N-acetyl-6-O-(carboxymethyl)-D-glucosamine] [57216-53-2], poly[N-acetyl-6-O-(2'-hydroxyethyl)-D-glucosamine] [57216-56-5], or poly[N-acetyl-acetyl-6-O-(ethyl)-D-glucosamine] [57216-54-3]. These powders were readily absorbed by living tissue without deleterious tissue reactions. The polymers were derived from chitin [1398-61-4]. Thus, finely ground com. chitin was decalcified by extracting with 2N HCl at 4° for 48 h. The material was collected by centrifugation and washed with water till neutral. The decalcified chitin was stirred at room temperature with HCO<sub>2</sub>H overnight. The mixture was centrifuged and the residue was washed with water. The washed chitin was suspended in 10% NaOH and was heated at 90-100° for 2.5 h. The solution was filtered, washed till neutral, and dried to give pure I.

IT 57216-54-3 57216-56-5

(as lubricant, for surgical rubber goods, preparation of)

RN 57216-54-3 HCAPLUS

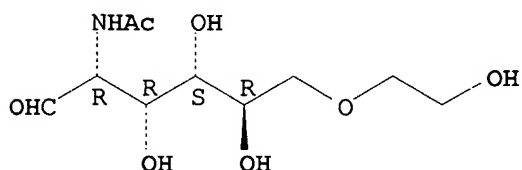
CN D-Glucose, 2-(acetyl-amino)-2-deoxy-6-O-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6

CMF C10 H19 N O7

Absolute stereochemistry.



RN 57216-56-5 HCAPLUS

CN D-Glucose, 2-(acetyl-amino)-2-deoxy-6-O-ethyl-, homopolymer (9CI) (CA INDEX NAME)

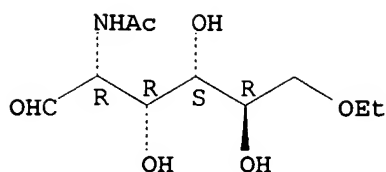
CM 1

CRN 57216-55-4

CMF C10 H19 N O6

Absolute stereochemistry.





IC A61B019-04  
 INCL 128001000R  
 CC 63-8 (Pharmaceuticals)  
 IT 27555-50-6 57216-53-2 **57216-54-3** **57216-56-5**  
 (as lubricant, for surgical rubber goods, preparation of)

L23 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1976:35314 HCAPLUS  
 DOCUMENT NUMBER: 84:35314  
 TITLE: Enzymically decomposable bioerodible  
 pharmaceutical carrier  
 INVENTOR(S): Capozza, Richard C.  
 PATENT ASSIGNEE(S): American Cyanamid Co., USA  
 SOURCE: Ger. Offen., 24 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 2505305	A1	19750821	DE 1975-2505305	1975 0207
US 3911098	A	19751007	US 1974-441695	1974 0211
ZA 7500472	A	19760128	ZA 1975-472	1975 0122
IL 46496	A1	19780831	IL 1975-46496	1975 0123
AU 7577602	A1	19760729	AU 1975-77602	1975 0124
GB 1499751	A	19780201	GB 1975-4193	1975 0130
NL 7501365	A	19750813	NL 1975-1365	1975 0205
CA 1045975	A1	19790109	CA 1975-219603	1975 0207
BE 825367	A1	19750811	BE 1975-153217	1975 0210
SE 7501464	A	19750812	SE 1975-1464	

				1975 0210
RO 68711	P	19801030	RO 1975-81371	
				1975 0210
FR 2260356	A1	19750905	FR 1975-4245	
				1975 0211
DD 118801	C	19760320	DD 1975-184115	
				1975 0211
ES 434618	A1	19770416	ES 1975-434618	
				1975 0211
CS 207808	B	19810831	CS 1975-860	
				1975 0211
JP 50123815	A2	19750929	JP 1975-16958	
				1975 0212
PRIORITY APPLN. INFO.:		US 1974-441695	A	1974 0211

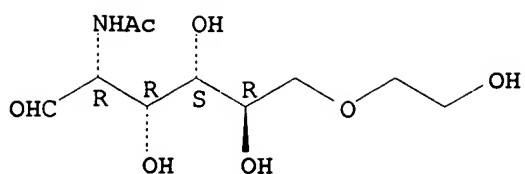
AB. An enzymically degradable form of poly(N-acetyl-D-glucosamine) (chitin) [27555-50-6] served as a matrix for controlled release of drugs, especially in the eye. Degradable forms included also poly(N-acetyl-6-O-carboxymethyl-D-glucosamine) [57216-53-2], poly[N-acetyl-6-O-(2-hydroxyethyl)-D-glucosamine] [57216-54-3], and poly(N-acetyl-6-O-ethyl-D-glucosamine) [57216-56-5], all of which were degraded by lysozyme [9001-63-2]. Preparation of these polymers from com. chitin was described. Films of the latter 3 polymers were prepared from aqueous solns.; suitable solvents for poly(N-acetyl-D-glucosamine) were hexafluoroacetone [684-16-2] sesquihydrate and hexafluoroisopropanol [920-66-1]. Thus, 50 mg pilocarpine nitrate [148-72-1] was added to a 5% aqueous solution of poly(N-acetyl-6-O-carboxymethyl-D-glucosamine) (0.95 g) and poured on a glass plate to form a 1.02 mm film which was dried and soaked in 10% alum solution for 5 hr. A 1 + 10 mm section of this film, placed on the eye surface of rabbits, was well tolerated and caused pupil contraction lasting 6 hr.

IT 57216-54-3 57216-56-5  
(pharmaceutical controlled release from matrix of, in eye)  
RN 57216-54-3 HCAPLUS  
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-(2-hydroxyethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27024-00-6  
CMF C10 H19 N O7

Absolute stereochemistry.



RN 57216-56-5 HCAPLUS

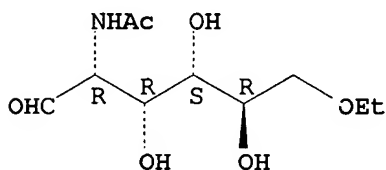
CN D-Glucose, 2-(acetylamino)-2-deoxy-6-O-ethyl-, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 57216-55-4

CMF C10 H19 N O6

Absolute stereochemistry.



IC A61K; A61F

CC 63-6 (Pharmaceuticals)

IT 27555-50-6 35110-26-0 57216-53-2 57216-54-3

57216-56-5

(pharmaceutical controlled release from matrix of, in eye)